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ABSTRACT

This report presents an evaluation of the Cleveland Scholarship Program (CSP) after two years in operation. The program provided low-income families with scholarships that they could redeem at any participating Cleveland private school. The evaluation of the program involved a survey of two groups of parents in 1998: parents of children in grades 1-4 who made use of CSP vouchers to attend private schools (and had previously attended public schools) and a random sample of parents in Cleveland with first through fourth graders in public schools. Demographically, voucher recipients were more economically disadvantaged than the average public school family, but in other respects they were relatively advantaged. Voucher recipients were more likely to be African American. CSP won strong endorsement from participating low-income families. Most family background characteristics had little effect on parental satisfaction levels. Parents of voucher recipients were more likely to be very satisfied with nearly every aspect of their schools than were parents of students in Cleveland public schools. Significant differences in satisfaction were noted for teacher skills, the teaching of values, school discipline, and class size. Test scores from two private schools with large enrollments of CSP students rose. School mobility rates for voucher recipients were similar to those of students in the public schools. (SM)

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AN EVALUATION OF THE CLEVELAND VOUCHER PROGRAM AFTER TWO YEARS

The Cleveland Scholarship Program (CSP) was initiated in the fall of 1996, giving students from low-income families scholarships which they could redeem at any participating Cleveland private school, secular or religious. Before the program even got off the ground, however, it was besieged with challenges in the court. In the summer of 1996 the American Federation of Teachers, along with other organizations and teachers, brought suit against CSP in the state courts. Two weeks before the beginning of the school year, however, the trial court allowed the program to proceed, and 1,996 scholarship recipients ended up attending fifty-five private schools in grades kindergarten through grade three. Approximately 3,000 students participated in the program in its second year, and 3,674 students in the third year. Fifty-nine schools were participating in 1998-99.[1]

In June 1999 the Ohio State Supreme Court ruled that the program did not violate of the establishment clause of the U.S. and Ohio constitutions but did find that the legislative vehicle by which the program was created violated procedural requirements of the Ohio Constitution.[2] As a result, the program must receive new legislative authorization if it is to continue in the fall of 1999. In June 1999 the Ohio State legislature was deliberating on the program's future.

Administered in the summer and fall of 1998, this evaluation reports results from a survey of the following two groups of parents:

1) parents of children in grades 1-4 who made use of a CSP voucher to attend a private school (but had previously attended a public school);

2) a random sample of all parents in Cleveland with children in public schools in grades 1-4.[3]

In the spirited national debate over school choice, many arguments have been advanced concerning the kinds of families likely to participate in a choice program, the willingness of private schools to accept a broad range of students, parental satisfaction with the schools their

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[1] Cleveland Scholarship and Tutoring Program, 1998-1999 School Year: Enrollment Demographics to Date, June 2, 1999.

[2] *Simmons-Harris et al. v. Goff, Supt., et al.*, Ohio St. 3d, May 27, 1999.

[3] CSP made available information that enabled PEPG to contact a sample of the scholarship recipients. Public-school parents were contacted by means of random digit dialing of phone numbers in City of Cleveland. PEPG designed the questionnaire and asked the Social Science Research Institute at Northern Illinois University to administer it. PEPG received financial support for this evaluation from the Kennedy School of Government's Taubman Center on State and Local Government, the John M. Olin Foundation, and the Walton Family Foundation.

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children attend, the levels of classroom disruption and parental involvement in public and private schools, the extent of school mobility that occurs within choice programs, and the information available to families when choosing a school.[4] Although CSP had been in place for only two years at the time this survey was administered, it nonetheless provides valuable evidence on these topics. In the following evaluation, PEPG briefly reviews some of the current debate on these topics and then presents pertinent information from the CSP experiment.

Origins of the Program

In March 1995 the Ohio General Assembly appropriated funds expected to be sufficient to provide 1,500 scholarships worth as much as $2,250 each. Scholarship recipients were to be chosen by lottery. The scholarship covered up to 90 percent of a school's tuition, the balance coming from the child's family or another private source. The maximum amount provided was about a third the per pupil cost of Cleveland public schools, which in 1997 was reported to be $6,507.[5] Additional public funds, however, were required to cover the costs of transportation, counseling and other related services.

The original legislation establishing CSP, which the state legislature passed in March of 1995, allowed as much as 50 percent of the total number of scholarships to be used for students already in private schools. The Ohio Department of Education then limited that percentage to just 25 percent of the total. To meet this objective, families seeking a scholarship were asked (in the fall of 1995) to indicate whether or not the applicant was currently attending a private school. Of the 6,244 applications received by CSP, 29 percent or 1,780 came from students already attending a private school. In January of the following year CSP held a lottery in which 375 scholarships were awarded to these applicants. Additional scholarships were awarded later, and, as of April 3, 1997, another fifty two scholarship were awarded to students previously matriculated in a private school, representing 21 percent the total number of scholarships awarded. The remaining 79 percent of the scholarships were granted to students who had previously been attending a public school or who were beginning kindergarten.[6]

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[4] For a critique of the Cleveland scholarship program, see Dan Murphy, F. Howard Nelson and Bella Rosenberg, *The Cleveland Voucher Program: Who Chooses? Who Gets Chosen? Who Pays* (A Report by the American Federation of Teachers, 1997), Table A3.

[5] *Cleveland Plain Dealer*, "The Equity Gap," March 25, 1997, A9.

[6] Paul T., Hill and Stephen P. Klein, "Toward an Evaluation Design for the Cleveland Scholarship Program," (Paper prepared for Ohio Department of Education, November 1996).

In two ways, Ohio Department of Education rules also gave preference to economically disadvantaged students. First, students from low-income families received larger scholarships. Students coming from families whose income was below 200 percent of the poverty line received 90 percent of their school's tuition, up to $2,250, while those students coming from families whose income was at or above 200 percent of the poverty line were eligible to receive $1,875 or 75 percent of their school's tuition, whichever was less. Secondly, students from low-income families were given a better chance of winning the initial lottery. Procedures giving preferences to students from low-income families were also in place for new applicants in subsequent years of the scholarship program.[7]

The Parent Survey

PEPG conducted parental surveys of scholarship recipients and public school students in the summers of 1997 and 1998, after the completion of CSP's first and second years. (Our evaluation of CSP's first year is reported elsewhere).[8] Interviews were conducted with a sample of 505 parents of scholarship recipients and 327 parents of students in public schools. The response rates for the two groups are reported in the Appendix.

Background Characteristics of Applicants

Many of those critical of choice programs fear that disadvantaged families will not be able to take equal advantage of the program. In the words of a recent Twentieth Century Fund report, if school choice "becomes a strategy to . . . restrict lower-income students of color to an inferior education, then the divisions between rich and poor in this country, and the attendant social problems, will only increase."[9] But a Heritage Foundation report counters that "school choice programs benefit minority inner-city students the most."[10] This parental survey permits a preliminary evaluation of these claims.

Survey results indicate that it is possible to develop choice programs which serve low-income recipients. As can be seen in Table 1, the average family income of scholarship recipients was significantly less than that of families whose children were attending public schools. The average income of the families receiving scholarships was roughly $16,000 a year, as compared to nearly $20,000 for

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[7] Cleveland Scholarship and Tutoring Program," 1998-1999 School Year, Enrollment Demographics To Date," June 2, 1999.

[8] Jay P. Greene, William G. Howell, and Paul E. Peterson, "Lessons from the Cleveland Scholarship Program," in Paul E. Peterson and Bryan C. Hassel, eds., *Learning from School Choice* (Brookings, 1998), pp. 357-394.

[9] Carol Ascher, Norm Fruchter, and Robert Berne, *Hard Lessons: Public Schools and Privatization* (New York: Twentieth Century Fund Press, 1996), p. 111.

[10] Nina H. Shockraii and John S. Barry, "Two Cheers for the S. 1: The Safe and Affordable schools Act of 1997," *The Heritage Foundation Issue Bulletin*, No 232, p. 5.

public-school parents. These differences are undoubtedly due to the fact that CSP rules required that scholarships first be given to families of lower income.

Scholarship recipients were also more likely to live in single-parent families and less likely to have a child in a program for gifted or talented students (tables 1 and 2). In addition, parents of scholarship recipients were more likely than public-school parents to be African American and less likely to be either white or Hispanic. They were also more likely to be Baptist, probably because African Americans are more likely than other ethnic groups to be of this religious affiliation.

In several respects, scholarship families were more advantaged than public-school parents. The education of the mothers, for example, was higher. The average scholarship mother had attended one year of college, while the average mother of a child still in public school was only a high-school graduate (Table 1). On average, slightly fewer children lived in the households of scholarship families than public school families, and their children were less likely to have a learning disability (see Tables 1 and 2). Finally, mothers of scholarship recipients generally attended religious services more frequently.

In some ways, the two groups of parents did not differ significantly. The mothers of recipients were no more or less likely to be employed, were equally likely to have been born abroad and were just as likely to have lived at the same address for more than a year.

To control for differences in the family backgrounds and the characteristics of children in these two groups, in the subsequent sections we supplement simple comparisons of scholarship recipients and public school parents with multivariate regression analyses.

Parental Satisfaction

Many economists think that customer satisfaction is the best measure of the quality of any product, public and private schools quite included. Parents' satisfaction with their children's educational experiences represents, for some, strong evidence that schools are doing their job effectively.

When trying to ascertain whether private school parents are more satisfied than public school parents, however, it is critical to select populations within each sector than can fairly be compared. In the first evaluation of CSP, Greene, Peterson and Howell found much higher levels of parental satisfaction among voucher recipients than among parents who had applied for but did not receive a scholarship. Subsequent to the initial report, two criticisms of these findings were raised. The first "sour grapes" criticism suggested that the comparison group of parents, those who had applied for but did not receive a scholarship, were unlikely to represent the typical public school parent. Quite the contrary, by virtue of having applied to a scholarship program, they might be unusually dissatisfied with public schools. To show that voucher families were happier than a group of sour grapes, the criticism went, was to prove very little. The second criticism suggested that the high levels of satisfaction with choice schools were simply a function of the Hawthorne effect, the propensity of people to appreciate anything that is new and different. Once they become adjusted to the change, levels of satisfaction can be expected to dwindle. The classic Hawthorne study found that worker productivity increased when blue walls were painted green but then found that productivity rates increased once again when the green walls were restored to their former hue).

The 1998 parent survey addresses both of these criticisms. Because the control group now

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consists of a random sample of public school parents, it is now possible to determine whether scholarship recipients are more satisfied than are public school parents generally and not simply more satisfied than voucher applicants, who may be a small group of disgruntled parents. And because the data for this evaluation were collected two years after the initial establishment of the program, any potential Hawthorne effects surely have dissipated.

Table 3a provides information on the sour grapes hypothesis. It compares the parental satisfaction of public school parents generally (Column 1) with that of voucher applicants remaining in public schools (Column 2). Not much evidence can be found for those who think dissatisfaction with public schools is limited to scholarship applicants. Although voucher applicants were slightly less satisfied with public schools than a cross-section of public-school parents, the differences are statistically insignificant. For example, while only 28 percent of the voucher applicants were very satisfied with the academic program of the public school, just 31 percent of all public-school parents also gave this response. In the case of class size, 12 and 16 percent of the two groups gave this response respectively. In short, a cross-section of Cleveland public-school parents were no more satisfied with their schools than were the applicants to the Cleveland voucher program.

But how about the Hawthorne effect? Were CSP parents more satisfied with private schools simply because they were experiencing something new? Here, stronger evidence can be found in support of the hypothesis. When we compare only those parents who were interviewed in both 1997 and 1998 (Table 3b, Columns 3 and 4), we find that after two years parents viewed their child's school with greater nuance than previously. They remain just as satisfied with the academic quality, safety and discipline of the school their child is attending, but they begin to express somewhat less satisfaction with the school's facility, the size of the classes at the school, the extent to which parents are involved, and even the teaching of moral values.

Despite these declines from the first year to the second with respect to some school characteristics, scholarship recipients remained considerably more satisfied with their school than parents of students in public schools (see Table 3c). Nearly half of the parents in choice schools report being "very satisfied" with the academic program of their child's school, as compared to less than 30 percent of public-school parents. Half of the scholarship parents were very satisfied with school safety, as compared to just over 30 percent of public-school parents. With respect to school discipline, about half of scholarship parents were very satisfied, as compared to only a quarter of public-school parents. These differences were also large when parents were asked about teacher skills, the teaching of moral values, and class size. The most extreme differences in satisfaction pertained to the teaching moral values, when 55 percent for the voucher parents claimed to be very satisfied, as compared to 30 percent of the public-school parents. However, there was no difference in satisfaction with the school's location and the difference with regard to parental involvement, while statistically significant, was also considerably smaller than the others.

To estimate more precisely the effects of attending a private school on parental satisfaction, we developed a composite index of parental satisfaction with their school that included all the separate items listed in table 3c and took into account all four levels of satisfaction parents expressed ("very satisfied," "satisfied," "unsatisfied," and "very unsatisfied"). We then regressed this index of satisfaction on the type of school they attended, along with a host of background characteristics.

Most family background characteristics had little effect on parental satisfaction (see table 4). Neither family income, mother's education, mother's employment situation, residential stability, family

size, whether or not the family had a single parent nor the frequency mothers attended religious services had any independent effect on parental satisfaction levels. The one exception to this pattern is ethnicity: African Americans tend to be less satisfied than other ethnic groups.

The factor that had the single largest impact on parental satisfaction was whether or not the child attended a private school (Table 4). The effect was both large and statistically significant. Moving from a public to a private school increased a person's level of satisfaction by 10 points on a 100-point scale, an effect size of 0.59 standard deviations. (Generally speaking any effect size that exceeds 0.5 standard deviations is thought to be extremely large; effects that are only 0.2 standard deviations are judged to be moderate).[11]

It is quite possible, however, that the private-school effect is not evenly distributed across all types of private schools. To test whether parents were disproportionately satisfied with a subset of private schools, we disaggregated the private school variable into its separate components – Catholic school, Lutheran school, other private Christian schools, Muslim schools, the Hope Schools and other secular private schools. Among these schools, the most satisfied were parents of students in Catholic schools. Not far behind, however, were the parents of students attending the Hope schools, a significant finding in light of the controversy surrounding these new schools. (We discuss Hope school test scores below). All private school parents, with the exception of those at other Christian schools, were statistically more satisfied on average than public school parents.

Parental Assessments of their Children's Schools

In addition to this battery of satisfaction indexes, parents were also asked to assess specific attributes of their children's schools. Parents were asked whether "teachers help all the students," whether "rules for behavior are strict," whether the "school listens to parents," whether "teaching is good" and whether "parents work together to support the school." As can be seen in table 5, for four out these five positive characteristics the parents of scholarship students gave their school a higher score than did public-school parents. Only when asked whether or not the "school listens to parents" does one find a difference too small to be statistically significant. (In the last column we report the effect sizes in standard deviations).

Parents were also asked about the following negative attributes: "discipline is a problem," "academic standards are too low," and "teachers do not assign enough homework." Here again public school parents, on average, gave their school higher marks than did private-school parents.

In addition, parents were asked whether their children's schools had such problems as vandalism, tardiness, absenteeism, fighting, cheating and racial conflict. With the exception of tardiness and cheating, private school parents reported significantly fewer problems (see Table 6). For example, only 12 percent of the parents of voucher recipients reported "fighting" as a problem at their child's school, as opposed to 27 percent of public-school parents. Racial conflict was said to be a problem by 10 percent of the public-school parents but only 5 percent of the voucher parents. Similarly, reported vandalism rates were 13 percent and 3 percent for the two groups respectively.

To estimate more precisely the effect of a child's attendance at a private school on parental

[11] Frederick Mosteller, "The Tennessee Study of Class Size in the Early School Grades," *Future of Children* 5(2): 119-20.

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perceptions of these school problems, again we developed an index of school problems that included all the items listed in Table 6. We then regressed this index of school problems on the type of school the child attended and a wide range of family background characteristics. The only background characteristic that seemed to affect parental perceptions of school problems was whether or not the mother worked full time (Table 7). Working mothers perceived greater problems at school, perhaps because they have less time to meet with school officials on behalf of their child.

By far the most important factor affecting parents' perceptions of school problems was whether or not the child attended a private school. And as is clear in column two, the fewest problems were perceived among parents of children attending Catholic schools. Hope school parents also perceived fewer problems. Without exception, however, parents at all types of private schools perceived a smaller number of problems than did parents of children at public schools.

Parental Involvement

Studies of parental involvement in public and private schools generally find higher levels of parental involvement in the private sector. For example, a recent study of a privately-funded voucher program in New York City found positive effects of vouchers on parental involvement in school activities.[12] But in Cleveland, public-school parents, for the most part, report just as high levels of involvement in school activities and the education of their children as do parents of scholarship recipients. As can be seen in Table 7, the two groups of parents were equally likely to report that they volunteered at school, participated in the PTA, and attended school events. They were also equally likely to discuss with their children experiences at school, help their children with homework, and read to their children. Even when differences in the demographic characteristics of parents are taken into account, the parents of scholarship recipients are no more likely to be involved in their child's educational experiences (see Table 8). Only in one respect do the two groups of parents differ: scholarship parents are slightly more likely to discuss school affairs with other parents than are public-school parents. Perhaps scholarship parents, in order to exercise their choice intelligently, find it necessary to learn more from other parents about the schools their children are attending.

While attendance at a private school does little to explain parental involvement, parents' religious behavior certainly does (Table 9). Parents who attend church more frequently are much more likely to be engaged in school activities. Both activities may be caused by the same underlying factor: the degree to which parents are connected to their community.

School Mobility Rates

Most educators think that, all things being equal, it is better that students stay in the same school, especially during a given school year. Other things being equal, education works better when it is not subject to the disruption that comes with changing schools. In this regard, many have expressed a concern about vouchers and other school-choice programs. One evaluation of the Milwaukee choice

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[12] Paul E. Peterson, David E. Myers, William G. Howell, and Daniel P. Mayer, "The Effects of School choice in New York City," in Susan Mayer and Paul E. Peterson, eds., *Earning and Learning: How Schools Matter* (Brookings, 1999).

program claimed that "attrition" from the program was its "most troubling aspect."[13] But these concerns have not gone undisputed. Daniel McGroarty, for example, has argued that mobility rates among participants in Milwaukee's school choice program were lower than the mobility rates among the city's public school students.[14]

In Cleveland we find no significant difference in the mobility rates of scholarship recipients and those of students in public schools (table 10). Ninety-six percent of the parents of public-school students report that their child had remained in the same school throughout the entire school year, as compared to 92 percent of scholarship parents, a difference that is not statistically significant. When asked about plans for the forthcoming year, the response rates for the two groups of parents was once again essentially the same: 79 percent of the scholarship parents and 77 percent of the public-school parents say their child will attend the same school next year.[15]

Critics of school-choice programs often wonder whether the perceived advantages of private schools are simply a function of their ability to expel low-performing students, and have little if anything to do with their actual capacity to educate children. According to parental reports, this explanation does not apply to Cleveland, where virtually no parents in either group claim that their child had been expelled. The two groups of parents also reported similar absenteeism and tardiness rates.

Market Penetration

Critics of voucher programs have wondered whether low-income parents have enough information about schooling opportunities available to them to be able to make effective choices. This issue is critical, for if school choice programs are to be successful, they must enlist the active participation of parents. As such, this topic requires more elaborate exploration than we were able to undertake in this survey. Nonetheless, this survey does provide some preliminary evidence in support of the notion that low-income parents can and do gather the kinds of information required to make knowledgeable decisions about their children's education.

We asked parents whether or not they were aware of a variety of public and private schools in the city. Since we were concerned that parents might claim knowledge even when they had none, we included in the questionnaire a fictitious school, "City Day School." If parents were reporting knowledge when none existed, they would inaccurately claim to have heard about this school. It is of

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[13] John F. Witte, "Who Benefits from the Milwaukee Choice Program?" in Bruce Fuller et al., eds., *Who Chooses? Who Loses? Culture, Institutions and the Unequal Effects of School Choice* (New York: Teachers College Press, 1996), p. 133; see also Carol Ascher, Norm Fruchter, and Robert Berne, *Hard Lessons: Public Schools and Privatization* (New York: The Twentieth Century Fund Press, 1996), p. 71.

[14] Daniel McGroarty, "School Choice Slandered, *"Public Interest,"* Fall, 1994, pp. 94-111.

[15] Those who could be reached by phone were likely to be a more stable group of parents than those who could not be reached; it is almost certain that the school-mobility rate was higher for those parents that could not be interviewed.

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interest, then, that only two percent of the scholarship parents and four percent of the public-school parents claimed to have known about this school (Table 11). This lends a measure of credence to the answers parents provided about the other private and public schools.

As can be seen in Table 11, most parents of school-age children are aware of the CSP program. Virtually all of the scholarship parents said they had heard of the Cleveland Scholarship and Tutoring Program, which makes perfect sense given that they were participants in it. The four percent who said they had not heard about the program probably misunderstood the question. But 70 percent of the public-school parents also were aware of the voucher program, suggesting that program administrators did a remarkable job of disseminating information about the program in the Cleveland community.

Parents generally knew less about individual schools than they did about the scholarship program as a whole. Still, the vast majority of scholarship parents – over 80 percent – claimed to know about the "Hope schools," two new schools that were created in response to the scholarship program. Apparently, scholarship parents familiarized themselves with at least some of the alternatives that were available. By comparison, only 25 percent of the public school parents were familiar with the Hope schools, probably because they paid less attention to the alternatives vouchers provided.

In the case of magnet school within the Cleveland public school system, schools that were also available to some voucher parents, the pattern was reversed. Only a fourth of the scholarship parents had heard of the Douglas MacArthur magnet school, as compared to over a third of the public-school parents. The Newton Baker "magnet" school was equally well known to both groups of parents: about 40 percent of both public-school parents and voucher recipients were aware of the school.

Test Scores

Standardized test scores from two private schools with large enrollments of scholarship students, Hope Academy and Hope Ohio City, were made available to PEPG. Testing sessions for which information is available include Fall, 1996; Spring, 1997; Fall, 1997, and Spring, 1998. For a number of reasons an analysis of test scores from these two schools is of particular interest:

1. The Hope schools were he only schools formed in response to the adoption of the Cleveland scholarship program. As such, they provide information on schools that develop in response to the introduction of a school choice program.

2. The Hope schools announced they would accept all students who applied for admission. Many of the poorest and educationally least advantaged students went to the Hope Schools, making an examination of test scores from these schools a hard test case of the program as a whole.

3. Initial enrollment at the Hope schools constituted approximately 15 percent of the total initial enrollment in the Cleveland scholarship program and approximately 25 percent of the initial group of students who had previously attended public schools.

4. The Hope schools are the only choice schools that have made available to researchers raw

test score data for all students over four testing sessions, providing a unique opportunity to analyze longer term trends of voucher recipients' test score performances.

5. The AFT has expressed concern that the Hope schools, with their large proportion of scholarship students, were "voucher-dependent" and had little or no "educational track record."[16] Because a large percentage of students who were drawn from public schools went to the Hope schools, the AFT suggested that these scholarship students were being channeled into inferior institutions. An analysis of test scores from the Hope Schools helps address these concerns.

6. An evaluation of the test scores of thirty-one Hope school students in third grade found that these students were not learning as much as a group of students in Cleveland public schools.[17] It is of interest to discern whether this finding is confirmed when a larger sample of Hope school students is drawn.

Scores from the California Achievement Test (CAT) were examined for all students who had scores in two or more testing sessions. The Hope schools' staff reported that they tested all students in attendance when the tests were administered, including those students identified as having special needs.[18]

As can be seen in Table 12, test score gains are observed in both math and reading between the fall of 1996 and the spring of 1998 for all students who took tests at these two points in time. The increases are 7 percentile points in reading and 15 percentile points in math. These gains were made in the first year students attended the Hope schools. Generally speaking, the gains were maintained in the second year but they did not continue to rise. For example, reading percentile scores were, on average, 36 points in both the spring of 1997 and the spring of 1998. Average math scores declined from 44 to 41 percentile points, a decline that is not statistically significant.

Of the twenty-four comparisons that are possible, only one decline in test scores was statistically significant. Math test scores declined between the summer and fall of 1997, though reading

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[16] Murphy *et al.*, p. ii.

[17] Kim K. Metcalf, William J. Boone, Frances K. Stage, Todd L. Cilton, Patty Muller, and Polly Tait, "A Comparative Evaluation of the Cleveland Scholarship and Tutoring Grant Program: Year One: 1996-97," School of Education, Smith Research Center, Indiana University, Bloomington, Indiana, March 1998; Kim K. Metcalf, Patricia Muller, William Boone, Polly Tait, Frances Stage, and Nicole Stacey, "Evaluation of the Cleveland Scholarship Program: Second Year Report (1997-98), Smith Research Center, Indiana University, Bloomington, Indiana, November, 1998.

The research design for this study has many flaws, casting serious doubts on the accuracy of its reported findings. For a detailed criticism of this study, see Jay P. Greene, William G. Howell, and Paul E. Peterson, "Lessons from the Cleveland Scholarship Program," in Paul E. Peterson and Bryan C. Hassel, eds., *Learning from School Choice* (Brookings, 1998), pp. 357-394 and Paul E. Peterson and Jay P. Greene, "Assessing the Cleveland Scholarship Program: A Guide to the Indiana University School of Education Evaluation," Occasional Paper, Harvard University, Program on Education Policy and Governance, March 1998. This paper is available at http://data.fas.harvard.edu/pepg/

[18] PEPG did not observe the testing situation. The results reported here are based on the assumption that school administrators followed the testing procedures prescribed by the CAT.

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scores did not. The tendency for a fall-off over the summer in test scores among students from low-income families is not unusual.

The Indiana evaluation of the Hope schools, which observed only the changes in test scores over the course of the 1998 school year, did not examine changes occurring in the first year. Given that gains were achieved in the first year and only maintained in the second, this may partly account for the conclusion reached by the Indiana evaluation that the test scores of Hope school students lagged behind those of the comparison group in their study. The results reported by the Indiana evaluation team may also be due to the fact that they observed only third graders, whereas the data we report are for all students in the school who took a test at four different points in time.[19]

It is not uncommon for interventions to achieve initial gains that are only maintained but not increased in subsequent years. For example, the Tennessee Star study found that reducing average class sizes from 24 to 16 increased achievement levels for students in first grade. Continued smaller class sizes in grades 2 and 3 maintained but did not increase the gains initially achieved in the first grade.[20] Many groups such as the American Federation of Teachers have nonetheless identified the class-size reduction experiment in Tennessee as a successful program that should be emulated by other school systems.

It remains to be seen whether the test scores of Hope school students increase during the third year of the scholarship program. More definitive conclusions about the effects of the scholarship program on academic achievement depend upon the collection of additional data. It is also quite possible that the results at the Hope Schools are not representative of the program as a whole. But given that these schools have been deemed most problematic by choice critics, the gains witnessed there suggest that CSP as a whole probably has helped improve student test scores.

Conclusions

The data upon which this evaluation is based are necessarily limited. At the time these data were collected, CSP had been in operation for only two years, a period not long enough to fully evaluate an educational program. Test-score results are for only two schools in the program and are available for only two years. Also, the data available for analysis are not from a randomized experiment, enabling investigators to compare participants with a control group of essentially identical parents and students.[21]

Despite these limitations, the quality of the data is sufficient to draw some preliminary conclusions. The experiences of parents of voucher recipients can be compared to the experiences of parents from a cross-section of Cleveland's public schools. Since the program has been in operation for two years, it is now possible to estimate the extent of parental satisfaction with the school after initial

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[19] Absent results from a randomized experiment, all evaluations of test score results of CSP students are less than definitive.

[20] Frederick Mosteller, "The Tennessee Study of Class Size in the Early School Grades," *Future of Children* 5 (2): 113-27.

[21] For an evaluation of a school-choice intervention using data from a randomized experiment, see Peterson, Myers, Howell and Mayer, "The Effects of School Choice in New York City."

parental euphoria—generally known as the "Hawthorne effect"—has dissipated. And since background data is available, it is also possible to control for the demographic characteristics that may distinguish parents in either group.

Voucher recipients were economically more disadvantaged than the average public-school family; they had lower incomes, were more likely to be living in single-parent families, and less likely to be in a gifted program. In other respects, however, they were relatively advantaged. Mothers of voucher recipients had more education and attended religious services more frequently. They were also more likely to be African American.

The parent survey indicates that CSP has won a strong endorsement from the low-income families participating in it. Parents of voucher recipients are more likely to be "very satisfied" with nearly every aspect of the schools they attend than are parents of students in Cleveland public schools.

Test scores in math and reading have risen in the Hope schools, the two schools newly established in response to CSP, which choice critics deemed among the most problematic of those participating in the program. No further test gains, however, were observed in the second year.

School mobility rates for voucher recipients were similar to those of students in the Cleveland public schools. Only a tiny fraction, less than one-half of one percent, of the parents new to choice schools reported that their child had been expelled from their private school.

Based on the information contained in this report, the authors recommend that the Cleveland Scholarship Program be continued and expanded by the State of Ohio.

Table 1 -- Demographic Characteristics of Parents in Cleveland

	Scholarship Recipients (1998)	N	Public School Parents (1998)	N
	(1)		(2)	
Income:				
Less than $5,000	11.4%		9.8%	
$5,000-$7,999	14.4**		5.6	
$8,000-$10,999	12.3		8.9	
$11,000-$14,999	11.8		12.2	
$15,000-$19,999	17.7		13.6	
$20,000-$24,999	16.8*		9.4	
More than $25,000	15.6**		40.7	
Total	100.0%	423	100.0%	214
Average Income	$15,769**	423	$19,948	214
Mother's Education				
Eighth grade or less	0.6%		1.5%	
Beyond 8th, less than hs grad	7.0*		15.7	
GED	3.4		3.7	
High school graduate	28.5*		37.2	
Less than 2 yrs voc school	4.6		5.5	
2 yrs or more voc school	5.0		6.2	
Less than 2 yrs college	16.0**		7.7	
2 yrs or more college	26.2**		12.6	
College graduate (4 or 5 yr program)	8.0		8.0	
Masters degree or equivalent	0.8		1.9	
PhD, MD or other professional degree	0.0		0.0	
Total	100.0%	501	100.0%	325
Average Years of Education	13.2**	501	12.5	325
Mother's Employment Status				
Don't know	1.0%		2.5%	
Full time	53.2		46.0	
Part time	15.0		16.4	
Looking for work	11.4		14.5	
Not looking	19.4		20.7	
Total	100.0%	500	100.0%	324
Mother's Time at Current Residence				
Less than 3 months	3.0%		3.4%	
3-11 months	4.4		4.0	
1-2 years	16.3		15.5	
2+ years	76.3		77.0	
Total	100.0%	497	100.0%	322

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Table 1 Continued

	Scholarship Recipients (1998)	N	Public School Parents (1998)	N
	(1)		(2)	
Family Composition				
Mother and Father	27.0%**		51.7%	
Mother Only	68.2**		40.0	
Father Only	0.8		2.2	
Other Guardian	0.4**		6.1	
Total	100.0%	503	100.0%	325
Average Number of Children in House	2.6*	505	2.8	326
Mother's Religious Affiliation				
Baptist	43.4%*		33.0%	
Other Protestant	10.3		10.9	
Catholic	18.9		23.7	
Other Religion	13.7		19.2	
No Religion	12.1		10.3	
Prefer not to say	1.6		2.9	
Total	100.0%	498	100.0%	312
Frequency Mother Attends Religious Service				
Never	7.8%		11.7%	
Only on major holidays	10.2*		17.6	
Once a month	22.5		17.2	
Once a week	45.0*		35.9	
More than once a week	14.5		17.6	
Total	100.0%	413	100.0%	256
Mother's Ethnicity				
Black	68.7%**		45.9%	
White	21.6**		41.0	
Hispanic	4.2*		8.0	
Asian	2.2		0.9	
Other	3.4		4.3	
Total	100.0%	413	100.0%	327
Percentage of Mothers US Born	95.4	502	93.6	327

Figures many not sum due to rounding.
* = differences between columns 1 and 2 significant at $p < .05$
** = differences between columns 1 and 2 significant at $p < .01$

Table 2 – Children's Educational Characteristics in Cleveland

	Scholarship Recipients (1998)	N	Public School Parents (1998)	N
	(1)		(2)	
Child in program for gifted or talented students	8.4%*	501	15.2%	323
Child has physical disability	4.0	504	7.3	327
Child does not understand English well	2.2	505	2.8	325
Child has learning disability	8.3*	504	14.8	325
Parents who 'strongly agree' that their child puts a high priority on learning	51.5*	505	41.9	327

* = differences between columns 1 and 2 significant at $p < .05$
** = differences between columns 1 and 2 significant at $p < .01$

Table 3a – Parental Satisfaction with Current School in Cleveland

(grades 1-3, comparisons between 1998 public school parents and 1997 scholarship applicants who stayed in public schools)

	Public School Parents (1998)	N	Scholarship Applicants (1997)	N
	(1)		(2)	
Percent of parents 'very satisfied' with:				
Academic Program[1]	30.9%	178[2]	27.7%	382
Safety	30.9	178	25.1	383
School discipline	26.5	181	23.5	380
Parental involvement	28.3	180	23.5	378
Class size	16.1	180	12.3	380
School facility	17.9	184	20.9	380
Teaching moral values	27.5	178	24.0	373

* = differences between columns 1 and 2 significant at $p < .05$
** = differences between columns 1 and 2 significant at $p < .01$

[1] Question wording was slightly different in the two surveys. In 1997, parents were asked how satisfied they were with their school's "academic quality," whereas in 1998 parents were asked about their school's "curriculum or academic program."
[2] Grade specific information is available for only a subset of all parents.

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Table 3b – Parental Satisfaction with Current School in Cleveland

(comparisons between scholarship recipients in 1997 (grades 1-3) and 1998 (grades 2-4))

	All Parents Surveyed		Parents Surveyed in 1997 & 1998	
	Scholarship Recipients (1997)	Scholarship Recipients (1998)	Scholarship Recipients (1997)	Scholarship Recipients (1998)
	(1)	(2)	(3)	(4)
Percent of parents 'very satisfied' with:				
Academic Program	51.7%	44.4%	53.8%	45.4%
Safety	47.4	47.3	50.9	49.5
School discipline	46.4	46.2	51.2	47.3
Parental involvement	43.3	36.2	46.5*	37.0
Class size	42.1	36.2	48.0*	38.2
School facility	38.4	31.1	45.3**	30.6
Teaching moral values	57.6	51.5	63.6*	54.0
N (range for all items)	301-321	351-357	170-173	181-187

Comparisons made between columns 1 and 2 and between columns 3 and 4. * = significant at $p < .05$; ** = significant at $p < .01$

Table 3c – Parental Satisfaction with Current School in Cleveland

(1998 comparisons of scholarship recipients and public school parents, grades 1-4)

	Scholarship Recipients (1998)	N	Public School Parents (1998)	N
	(1)		(2)	
Percent of parents 'very satisfied' with:				
Academic Program	46.9%**	501	29.3%	318
Safety	49.4**	504	31.1	325
School discipline	47.6**	498	25.2	317
Parental involvement	38.4*	487	28.8	316
Class size	37.3**	502	14.5	318
School facility	32.5**	504	19.4	324
Teaching moral values	55.0**	498	30.0	308
Teacher skills	48.6*	502	38.9	321
Location	43.3	503	42.9	326
Student respect for teachers	45.4**	498	25.2	317

* = differences between columns 1 and 2 significant at $p < .05$
** = differences between columns 1 and 2 significant at $p < .01$

Table 4 – Multivariate Analysis of Parental Satisfaction

	Parental Satisfaction	
	Model 1	Model 2
Private School	0.30**	--
Private Catholic School	--	0.32**
Private Lutheran School	--	0.18**
Other Private Christian School	--	0.06
Private Muslim School	--	0.11**
Hope School	--	0.27**
Other Non-religious Private School	--	0.09**
African American	-0.20**	-0.18*
Family size	0.03	0.03
Income	-0.05	-0.04
Education of mother	-0.03	-0.04
Mother employed full time	-0.02	-0.02
Residential stability	0.01	0.02
Single parent family	0.01	0.04
Frequency mother attends religious services	0.04	0.05
Constant	0.71**	0.68**
Adjusted R^2	.10	.13
N	465	460

The dependent variable is a weighted index of responses parents give to all the individual satisfaction items listed in Table 3a. Ordinary least squares regression conducted. Standardized coefficients reported.
* significant at the .10 level, two tailed test; ** significant at the .05 level.

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Table 5 – Parents' Assessments of Their Schools in Cleveland

Level of Agreement (1=strongly disagree; 2=disagree; 3=agree; 4=strongly agree)	Scholarship Recipients (1998)	N	Public School Parents (1998)	N	Private School Effect Size (in st.dev.'s)
	(1)		(2)		
Current school has following positive characteristics:					
Teachers help all the students	3.14**	489	2.98	308	0.23
Rules for behavior are strict	2.93**	496	2.74	321	0.26
School listens to parents	3.03	476	2.95	304	0.12
Teaching is good	3.28*	505	3.17	327	0.17
Parents work together to support school	3.05*	485	2.93	304	0.18
Current school has following negative characteristics:					
Discipline is a problem	1.98**	501	2.16	319	0.27
Academic standards too low	1.96**	495	2.15	317	0.27
Teachers do not assign enough homework	1.93**	497	2.09	325	0.26

* = differences between columns 1 and 2 significant at $p < .05$
** = differences between columns 1 and 2 significant at $p < .01$

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Table 6 – Parents' Assessments of Problems at Their Children's Schools in Cleveland

	Scholarship Recipients (1998)	N	Public School Parents (1998)	N
	(1)		(2)	
Which of the following are problems at child's school:				
Vandalism:	3.0%*	498	13.5%	311
Tardiness:	13.0	438	18.7	251
Absenteeism:	5.2**	444	24.2	264
Fighting:	12.5**	481	27.3	308
Cheating:	2.1	434	5.1	237
Racial conflict:	4.8*	496	10.1	316

* = differences between columns 1 and 2 significant at $p < .05$
** = differences between columns 1 and 2 significant at $p < .01$

Table 7 – Multivariate Analysis of School Problems

	Assessment of Problems	
	Model 1	Model 2
Private School	-0.32**	--
Private Catholic School	--	-0.34**
Private Lutheran School	--	-0.15**
Other Private Christian School	--	-0.19**
Private Muslim School	--	-0.17**
Hope School	--	-0.24**
Other Non-religious Private School	--	-0.16**
African American	-0.05	-0.06
Family size	-0.02	-0.02
Income	-0.05	-0.05
Education of mother	0.08	0.09
Mother employed full time	0.15**	0.14**
Residential stability	0.01	-0.01
Single parent family	-0.03	-0.05
Frequency mother attends religious services	0.02	0.01
Constant	0.64	1.07
Adjusted R^2	.09	.08
N	370	370

The dependent variable is a weighted index of responses parents give to all the individual items listed in Table 6. Ordinary least squares regression conducted. Standardized coefficients reported. * significant at the .10 level, two tailed test; ** significant at the .05 level.

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Table 8 – Parental Involvement in Cleveland

	Scholarship Recipients (1998)	N	Public School Parents (1998)	N
	(1)		(2)	
Percent parents volunteered at school	59.4%	505	55.1%	327
Percent parents part of PTA/parent organization	32.9%	505	28.1%	327
Frequency attend events at school each semester:				
None	11.0%		10.8%	
1-2 times	33.3		31.6	
3-4 times	32.1*		23.2	
5+ times	23.7*		34.4	
Total	100.0%	493	100.0%	323
How often discuss school affairs with other parents				
Seldom or never	14.3%*		23.5%	
Less than once a week	34.3		30.8	
Once or twice a week	36.7		34.3	
Almost everyday	9.4		5.9	
Everyday	5.4		5.6	
Total	100.0%	502	100.0%	324
Scale of participation in following activities w/ child:[1]				
Discuss experiences at school	3.8	505	3.8	327
Work on homework	3.6	502	3.5	327
Read to or with child	3.1	500	3.0	327

* = differences between columns 1 and 2 significant at $p < .05$
** = differences between columns 1 and 2 significant at $p < .01$

[1]The scale for these items was:
1=none,
2=1-2 times a week,
3 =3-4 times a week, and
4 =5 or more times a week

Table 9 – Multivariate Analysis of Parental Involvement

	Parental Involvement	
	Model 1	**Model 2**
Private School	-0.00	--
Private Catholic School	--	0.06
Private Lutheran School	--	-0.02
Other Private Christian School	--	-0.04
Private Muslim School	--	-0.02
Hope School	--	-0.11**
Other Non-religious Private School	--	0.02
African American	-0.08*	-0.04
Family size	-0.03	-0.02
Income	-0.02	0.01
Education of mother	0.07	0.06
Mother employed full time	-0.03	-0.04
Residential stability	0.04	0.04
Single parent family	-0.07	-0.07
Frequency mother attends religious services	0.22**	0.22**
Constant	0.29**	0.29**
Adjusted R^2	.05	.07
N	509	506

The dependent variable is a weighted index of responses parents give to the first three parental involvement items in Table 8. Ordinary least squares regression conducted. Standardized coefficients reported. * significant at the .10 level, two tailed test; ** significant at the .05 level.

Table 10 – School Attendance in Cleveland

	Scholarship Recipients (1998)	N	Scholarship Recipients (1997)	N	Public School Parents (1998)	N
	(1)		(2)		(3)	
Attended same school for the entire school year:	92.3%	505	91.0%	600	96.0%	327
Attend same school next year:	79.4%	485	80.5%	507	77.1%	319
Expelled from school:	0.2%	505	0.2%	600	0.0%	327
Percent of parents notified when child is absent from school:	68.8%	477	--		66.7%	306
Number of days child missed from school during the last month of school:	1.3	502	--		1.5	316
Number of days child arrived late to school during the last month of school:	0.7	492	--		0.4	320

No differences are statistically significant.

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Table 11 – Market Penetration in Cleveland

	Scholarship Recipients (1998)	N	Public School Parents (1998)	N
	(1)		(2)	
Parents who have heard of the Cleveland Scholarship and Tutoring Program	96.8%**	505	68.5%	327
Parents who have heard of the following schools:				
Hope Schools (new private school)	81.0**	505	25.1	327
Douglas MacArthur (magnet public school)	25.4*	505	37.3	327
Newton D. Baker Elementary School (magnet public school)	43.0	505	41.3	327
City Day School (does not exist)	2.4	505	3.7	327

* = differences between columns 1 and 2 significant at $p < .05$
** = differences between columns 1 and 2 significant at $p < .01$

Table 12--Test Scores of Students at Hope Schools, Cleveland

	Fall '96	Spring '97	Fall '97	Spring '98	Students Tested [a]
Subject	(National Percentile Ranking Scores) [b]				
Reading	29.2	34.8*			(263)
Math [c]	31.9	46.9*			(263)
Reading	29.9		36.5*		(166)
Math	33.2		37.7*		(166)
Reading	29.1			36.6*	(144)
Math	26.4			42.0*	(146)
Reading		34.6	36.4		(209)
Math		45.2	37.0*		(208)
Reading		36.2		35.8	(177)
Math		44.3		41.3	(179)
Reading			37.3	34.2	(129)
Math			37.6	39.7	(129)

* Significant at $p < .05$ in a two-tailed test.

[a] All students present on both test days, including special needs students, are included in each comparison.
[b] Results are for kindergarten through third grade students in the 96-97 academic year and first through fourth grade in the 97-98 academic year.
[c] The math results are the results from the math concepts test because kindergartners did not take the complete math test.

Appendix: Response Rates among Eligible Contacts

	Voucher Recipients	Public School Parents
Total Successfully Interviewed	505	327
Did not complete interview	57	249
Reason for not completing interview:		
Respondent does not speak English	5	35
Respondent mentally impaired	1	8
Respondent unavailable	1	5
Respondent refused interview	47	164
Respondent hung up during interview	3	37
Total	57	249
Total eligible households contacted	562	576
Overall Response Rate	90%	57%

These figures represent the percentage of interviews successfully completed of those eligible households that were contacted in each group.